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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,945	05/22/2006	Ralf Mayer	032301.458	9528
441 7590 10/28/2010 SMITH, GAMBRELL & RUSSELL 1130 CONNECTICUT AVENUE, N.W., SUITE 1130 WASHINGTON, DC 20036				
EXAMINER				
STALDER, MELISSA A				
ART UNIT		PAPER NUMBER		
1732				
MAIL DATE		DELIVERY MODE		
10/28/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/595,945

Applicant(s)

MAYER, RALF

Examiner

MELISSA STALDER

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 6, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 6 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-07-10 has been entered.

Election/Restrictions

Newly submitted claim 12 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 12 is to a device and includes several structural limitations such as a feed and removal line, a motor, and a double-walled jacket which are not required in the previously submitted and currently amended process claims.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 12 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 6, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchnerova, Jitka, Synthesis and characterization of perovskite catalysts, Solid State Ionics 12 (1999) 307-317 in view of Allison (US 6,723,886).

Kirchnerova teaches the production of a perovskite catalyst where a lanthanum powder is added to a metal nitride solution (p. 310, Fig. 2 p. 311). A second solution of nitrates can then be added. A precipitate and an aqueous suspension are formed. Additionally, the partial precipitation of the transition metal can be adjusted with ammonia solution (abstract, p. 310, 1st column). Therefore, Kirchnerova has a solid, a salt solution, a second salt solution, and a final salt solution adjusted with another solution containing a salt. A precipitate and a suspension are formed (p. 310, 1st column, 2nd paragraph). The suspension is spray-frozen, freeze-dried and calcined (the freeze drying process involves sublimation of a liquid with the use of a vacuum pump). The resulting catalyst is identified (abstract; pg. 307, 2nd column; p. 310). Kirchnerova teaches that freezing should be done as quickly as possible to preserve solution homogeneity (p. 308, 2nd column). Kirchnerova teaches a calcination step (a heat treatment) (p. 309, 1st column). The catalytic activity is examined in the results section of the paper. Kirchnerova teaches that several different perovskite compositions can be prepared. It would have been obvious to ordinary skill in the art at the time of the invention to collect this data in a library because it is already known that this method can be used with several metals (col. 2, p. 310). Kirchnerova teaches that other rare

earth metals can be used in the invention (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention, therefore, to use these metals in the process with a reasonable expectation of success for catalytic activity.

Kirchnerova does not teach the vessel structure for the process.

Allison teaches reaction vessels running in parallel surrounded by a cooling medium (figures 7 and 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the process of Haas with the vessels of Allison because the parallel reactors are able to produce a greater amount of end product yet still be operated efficiently as they can all be cooled together. Although Allison teaches the production of a different product, use of reactor vessels in parallel instead of individually or consecutively is well known in the art and for commercial production of reactants.

Regarding claim 11, sedimentation in the solution will be prevented because as Kirchnerova teaches, the purpose of the process is to preserve the homogeneity of the precursor solution and avoid growth of large grains through controlled water removal conditions. Kirchnerova teaches analysis of the activity of the perovskite, the thermal stability of the catalyst and the composition (Table 2, 4.2, 4.3).

Response to Arguments

Applicant has not presented any arguments against the use of Kirchnerova in the previous rejection. The rejection therefore has been updated using this prior art and addressing the amendments in the RCE.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA STALDER whose telephone number is (571)270-5832. The examiner can normally be reached on Monday-Friday, 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MS

10-21-10

/Melvin Curtis Mayes/

Supervisory Patent Examiner, Art Unit 1732